

# Notice of Allowability

Application No.

10/826,161

Examiner

JEAN B. FLEURANTIN

Applicant(s)

ZENG ET AL.

Art Unit

2162

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/03/2007 and 8/06/2207.
2. ☒ The allowed claim(s) is/are 1-11, 14-25, 28-39 and 42-51.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date See Continuation Sheet
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

  
Jean Bolte Fleurantin  
Patent Examiner  
Technology Center 2100

Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 7/23/2007 and 4/26/2007.

### **DETAILED ACTION**

1. This is in response to Applicant's communication on 8/03/2007 and 8/06/2007.

The following is the status of claims:

Claims 12-13, 26-27, 40-41 and 52 have been canceled.

Claims 1-11, 14-25, 28-39 and 42-51 remain pending for examination.

#### *Information Disclosure Statement*

The information disclosure statement (IDS) submitted on 7/23/2007 and 4/26/2007. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

#### *Response to Arguments*

Applicant's arguments, filed 7/23/2007, with respect to the pending claims have been fully considered are persuasive, as a result, the amendment to the claims overcome the rejection. Therefore, the rejection of the last Office action has been withdrawn.

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Shirley Anderson (Reg. No. 57,763) on April 25, 2007.

The application has been amended as follow:

In the claims,

Claim 14, line 1, change "A method as recited in claim 13, wherein the features" to - - A method as recited in claim 1, wherein the features - -.

Claim 15

Line 1, change "A computer-readable medium comprising" to - - A computer-readable storage medium comprising - -.

Line 15, change "wherein the indexing generates one or more enhanced documents." to "wherein the indexing generates one or more enhanced documents; - -.

Claim 16, line 1, change "The computer-readable medium of claim 15," to - - The computer-readable storage medium of claim 15, - -.

Claim 17, line 1, change "The computer-readable medium of claim 15," to - - The computer-readable storage medium of claim 15, - -.

Claim 18, line 1, change "The computer-readable medium of claim 15," to - - The computer-readable storage medium of claim 15, - -.

Claim 19, line 1, change "The computer-readable medium of claim 15," to - - The computer-readable storage medium of claim 15, - -.

Claim 20, line 1, change "The computer-readable medium of claim 15," to - - The computer-readable storage medium of claim 15, - -.

Claim 21, line 1, change "The computer-readable medium of claim 15," to - - The computer-readable storage medium of claim 15, - -.

Claim 22, line 1, change "The computer-readable medium of claim 15," to - - The computer-readable storage medium of claim 15, - -.

Claim 23, line 1, change "The computer-readable medium of claim 15," to - - The computer-readable storage medium of claim 15, - -.

Claim 24, line 1, change "The computer-readable medium of claim 15," to - - The computer-readable storage medium of claim 15, - -.

Claim 25, line 1, change "The computer-readable medium of claim 15," to - - The computer-readable storage medium of claim 15, - -.

Claim 28, line 1, change "The computer-readable medium of claim 15," to - - The computer-readable storage medium of claim 15, - -.

Replace old versions of claim 43 with new versions

Claim 43

A computing device providing content propagation for enhanced document retrieval, the computing device comprising:

a processor; and

a memory coupled to the processor, the memory comprising computer-program instructions executable by the processor for:

identifying means to identify reference information directed to one or more documents, wherein the reference information identified from one or more sources of data, is independent of from a data source comprising the one or more documents;

extracting metadata that is proximally located to the reference information, which is surrounding the reference information and is semantically or contextually related to the reference information;

calculating relevance between respective features of the metadata to content of associated ones of the one or more documents;

indexing associated portions of the metadata with the relevance of features from the respective portions along with relevance scores, into original content of the document, for each document of the one or more documents,

wherein the indexing generates one or more enhanced documents;

analyzing means to analyze one or more enhanced documents to locate relevance information based on a search query;

ranking means to rank one or more enhanced document retrieval based on relevance scores; and

communicating means to communicate ranked results and snippet descriptions for enhanced document, retrieval, based on the search query;

wherein the calculating means further comprise clustering means to cluster heterogeneous objects using inter-layer links to determine importance measurements for features of the heterogeneous objects, the heterogeneous object comprising a first cluster of similar queries and a second cluster of

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related documents, the similar queries having been identified in the search query log, the similar queries being associated search result(s) comprising the one or more documents, the related documents being identified in the search result(s) independent of whether individual ones of the related documents were selected by an end-user from the search results.

### **REASONS FOR ALLOWANCE**

With respect to claims 1-11, 14-25, 28-39 and 42-51 are allowed over the prior art of record.

The following is an examiner's statement of reasons for allowance:

With respect to claims 1, 15 and 29, the claimed features "extracting metadata that is proximally located to the reference information, which is surrounding the reference information and is semantically or contextually related to the reference information; calculating relevance between respective features of the metadata to content of associated ones of the one or more documents; determining missing end-user selection(s), where a missing end-user selection is an article in the search query results that was not selected; indexing associated portions of the metadata with the relevance of features from the respective portions along with relevance scores, into original content of the documents; wherein determining missing end-user selection(s) further comprises clustering heterogeneous objects using inter-layer links to determine importance measurements for features of the heterogeneous objects, the heterogeneous object comprising a first cluster of similar queries and a second cluster of related documents" in conjunction with other elements of the independent claims would not have been found to be anticipated or obvious over the prior art made of record. With respect to claim 43, the claimed features "extracting metadata that is proximally located to the reference information, which is surrounding the reference information and is semantically or contextually related to the reference information; calculating relevance between respective features of the metadata to content of associated ones of the one or more documents; indexing associated portions of the metadata with the relevance of features from the respective portions along with relevance scores, into original content of the documents; wherein the calculating means further comprise clustering means to cluster heterogeneous objects using inter-layer links to determine importance measurements for features of the heterogeneous objects, the heterogeneous object comprising a first cluster of similar queries and a second cluster of related documents" in conjunction with other elements of the independent claims would not have been found to be anticipated or obvious over the prior art made of record.

The dependent claims, being definite, further limiting, and fully enabled by the specification are also allowed.



The closest prior art, Hamandas et al., relates to Image retrieval by hypertext links.

Kirsch et al., U.S. Patent No. 5,845,278 relates to full text document searching and retrieval, performed over local and wide-area networks but fail to teach the above limitations.

LI, Yanhong, WO 97/49048 relates to a method of indexing documents includes obtaining a list of hyperlinks pointing to each document.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### CONTACT INFORMATION

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEAN B. FLEURANTIN whose telephone number is 571 – 272-4035. The examiner can normally be reached on 7:05 to 4:35.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 571 – 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-308-6606.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jean Bolte Fleurantin

Patent Examiner

Technology Center 2100

August 3, 2007